



Wisconsin Electric
A WISCONSIN ENERGY COMPANY

Wisconsin Electric
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May 1, 2001

Mr. James D. Loock
Chief Engineer – Electric Division
Public Service Commission of Wisconsin
P. O. Box 7854
Madison, WI 53707-7854

RECEIVED

MAY 7 2001

Dear Mr. Loock:

Electric Division

Wisconsin Electric Annual Reliability Report

Chapter PSC 113.0604 of the Wisconsin Administrative Code requires that electric utilities with 100,000 or more customers annually file with the commission a report summarizing various measures of reliability, with the first such report due on May 1, 2001. Wisconsin Electric Power Company (hereinafter “Wisconsin Electric” or the “Company”) herewith submits information responsive to the requirements contained in PSC 113.0604.

Satisfaction of Related Reporting Requirements

The information supplied herewith also partially fulfills the requirements of a plan to monitor electric, gas, and steam service quality levels and trends that was developed by Wisconsin Electric in response to PSCW Dockets 9401-YO-100 and 9402-YO-101, Order Point 14, and that was filed with the commission in a letter to Robert Norcross dated October 26, 2000, a copy of which is furnished as Attachment A. The information provided herewith is responsive to items 1 through 9 of the “Electric System Service Quality Reporting” portion of that plan. By separate agreement between the Company and commission staff, item 10, results of customer satisfaction surveys (also required by PSC 113.0609), will be filed with the commission on or before January 31, 2002. The OSHA performance data required in item 11 was delivered to you in a letter dated February 12, 2001, in compliance with the requirements of PSC 113.0612. No additional electric system data will be supplied in response to Order Point 14.

Much of the information currently required by PSC 113.0604 had been previously required in accordance with the Orders in PSCW Dockets 6630-UR-110 and 6630-UR-106 including, but not limited to:

- 6630-UR-110 ordered monthly reporting of daily performance statistics for Customer Call Centers. Reporting of monthly summary data is now required by PSC 113.0604(3)(c).
- 6630-UR-110 ordered annual reporting of Distribution System Reliability Indices. Reporting of this data is now required by PSC 113.0604(2)(a).

- 6630-UR-106, Order Point 16, and the order in 6630-UR-110 require annual reporting of Distribution Line Miles Rebuilt and Miles of Distribution Line in Service. This data is now required by PSC 113.0604(3)(a) and (b).
- 6630-UR-110, Order Point 98, requires annual reporting of tree trimming work progress and budget. This data is now required by PSC 113.0604(3)(f) and (g).

Wisconsin Electric believes that, with the filing of information required in PSC 113.0604, it has met the intent of service quality issues ordered in 6630-UR-110 and 6630-UR-106 and it is therefore appropriate for staff to grant the Company relief from these duplicative reporting requirements.

Responses to PSC 113.0604

PSC 113.0604(2)(a). Provided as Attachment B. (Also responsive to 113.0605(1)).

PSC 113.0604(2)(b) and (c). Provided as Attachment C.

PSC 113.0604(2)(d). This requirement does not apply for the 2000 Annual Report.

PSC 113.0604(2)(e). Provided as Attachment D.

PSC 113.0604(2)(f). Provided as Attachment E.

PSC 113.0604(3)(a). Provided as Attachment F.

PSC 113.0604(3)(b). Provided as Attachment G.

PSC 113.0604(3)(c). Provided as Attachment H.

PSC 113.0604(3)(d). Provided as Attachment I.

PSC 113.0604(3)(e). Provided as Attachment J.

PSC 113.0604(3)(f). Total annual tree trimming budget and actual. For year 2000, the annual tree trimming budget was \$20,437,243, and the actual expenses were \$21,442,487.

PSC 113.0604(3)(g). Total annual projected and actual miles of distribution line tree trimmed. For year 2000 the annual projected miles of distribution line trimmed was 3,000 and the actual miles trimmed was 3,273.

PSC 113.0605(1). Provided as Attachment B.

Steam System Service Quality

The following steam service interruption data is provided in response to the aforementioned plan submitted by Wisconsin Electric in compliance with 9401-YO-100 and 9402-YO-101, Order Point 14.

Forced and Unplanned Outages with Less Than 24 Hours Notice.

April 19, 2000, 0405 hours to 0638 hours. Valley Power Plant lost all boilers. Contacted as many large steam users of outage as possible before the system was automatically returned to service.

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October 19, 2000, 1500 hours to 1930 hours. Isolation of steam line for the purpose of connecting new customer resulted in the inadvertent service interruption of the HP service to the Milwaukee Journal at 924 N. 4th Street. Service restored after contacting customer.

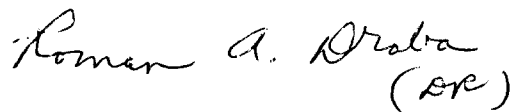
November 21, 2000, 1530 hours to 1830 hours. City of Milwaukee water main leak flooded facilities serving customer located at 333 N. Plankinton Avenue. Flooding resulted in steam pipe leak. Piping isolated, temporary repair made and customer returned to service.

There were no service interruptions that were forced or unplanned for the steam system at the Milwaukee County Grounds in Wauwatosa.

Please note that Gas System Service Quality Data will, for the time being, continue to be reported as it has in the past, individually for WEGO and WGC. Complete details regarding future gas system reporting may be found in Attachment A.

If you have any questions regarding the information provided in this report, please call Dave Butschli at 414-221-2550.

Sincerely,



Roman A. Draba
(SR)

Roman A. Draba
Assistant Vice President
State Regulatory Affairs

dlb

Attachments

Response to Commission Order Point 14 Service Quality Reporting

On March 15, 2000, the Public Service Commission of Wisconsin (the "Commission") issued its *Final Decision, Findings of Fact, Conclusions of Law, and Order* (the "Order") in Dockets 9401-YO-100 and 9402-YO-101. Order Point 14 of the Order states that "WEPCO and WGC shall work with Commission staff to develop a workable method to monitor electric, gas, and steam service quality levels and trends. The utilities shall propose a method to the Commission within six months of the effective date of the acquisition."

In accordance with an agreement reached on October 19, 2000, at a meeting attended by Dave Butschli (for Wisconsin Electric Power Company), Tom Collin (for Wisconsin Gas Company), and Messrs. Jim Lepinski and Tom Stemrich (for the Commission's Electric and Natural Gas Divisions), service quality data will be provided as described below.

Electric System Service Quality Reporting. Wisconsin Electric will comply with Order Point 14 in this docket by providing the following information on an annual basis beginning May 1, 2001:

1. Distribution system reliability report based on SAIFI, SAIDI and CAIDI indices.
2. A list of at least 5 percent but no fewer than ten of the Wisconsin Electric's worst performing distribution circuits.
3. Route miles of electric distribution line reconstructed during the preceding year.
4. Total route miles of electric distribution line in service at year's end, by voltage category.
5. Monthly average speed of telephone answer ("ASA") in the same format Wisconsin Electric has been supplying.
6. Average calendar days to install and energize service to a customer site once it is ready to receive service, by month.
7. Escalated complaint summaries, by month and category, in the same format Wisconsin Electric has been supplying in accordance with the order in Docket No. 6630-UR-110.
8. Total annual tree trimming budget and actual expenses.
9. Total annual projected and actual miles of distribution line tree trimmed.
10. Results of customer satisfaction surveys, pending resolution of differences between Commission staff and the industry.
11. Copy of the OSHA Safety Performance Annual Report filed by Wisconsin Electric.

Gas System Service Quality Reporting. Wisconsin Electric Gas Operations ("WEGO") and Wisconsin Gas Company ("WGC") both currently report some service quality data to the PSCW in accordance with chapter PSC 134, federal DOT requirements, and various rate order points, including WGC's Productivity-based Alternative Ratemaking Mechanism ("PARM") reporting requirements.

Because WEGO and WGC have only recently started the task of consolidating their operations, the gas utilities will continue to report in accordance with existing requirements until such time as the two utilities have fully merged their operations and have reconciled their data collection and analysis methods. Consolidated data collection abilities are expected to be in place no later than January 1, 2002, coincident with the final PARM report. Combined gas reporting will begin with data for the 2002 calendar year, to be provided in the May, 2003 annual report.

WEGO and WGC will comply with Order Point 14 by reporting gas service quality measures similar to the electric service quality reporting described above. With one exception, the gas service quality measures use data categories already in place to meet chapter PSC 134, federal DOT, or PARM requirements. The new category, progress in the Copper Riser Replacement Program, will take the place of reporting on replacement of bare steel main because neither WGC nor WEGO have any bare steel or cast iron main remaining on their systems.

The following gas service quality data will be provided by WEGO and WGC, in a consolidated manner:

1. Summary of Interruptions/Failures.
2. Third Party Damages.
3. Copper Riser Replacement Program.
4. Number of Corrosion Leaks on Main Repaired.
5. Total Miles of Distribution Line in service at year's end.
6. Monthly ASA data (incorporated with electric data, above).
7. Percent of New Service Installs Meeting Requested In-Service Date.
8. Escalated complaint summaries, by month and category, in the same format Wisconsin Electric has been supplying in accordance with the order in Docket No. 6630-UR-110 (incorporated with electric data, above).
9. O&M Actual Costs per Mile of Main.
10. Meet federal DOT leak survey and corrosion control requirements.
11. Customer Satisfaction Surveys, pending resolution of differences between Commission staff and the industry.
12. Copy of the OSHA Safety Performance Annual Report filed by the companies.

Steam System Service Quality Reporting. Wisconsin Electric will comply with Order Point 14 by providing an annual summary of forced outages and planned outages with less than 24 hours notice to the customer, beginning on May 1, 2001.

**WISCONSIN ELECTRIC RELIABILITY INDICES
PER PSC 113.0604 (2a) and PSC 113.0605 (1)**

PSC 113.0604 (2a): "An overall assessment of the reliability performance including the aggregate SAIFI, SAIDI, and CAIDI indices by system and each operating area, as applicable."

PSC 113.0605 (1): "Each electric utility with 100,000 customers or more that has historically used measures of system, operating area and circuit reliability performance, shall initially submit annual SAIFI, SAIDI, and CAIDI data for the previous three years. Those utilities that have this data for some time period less than three years shall submit data for those years it is available."

The attached information is derived from the database of all of Wisconsin Electric's service territory for 1998, 1999, and 2000 and includes:

- System Performance
- Operating Area Performance

Note: The Iron Range Operating Area includes circuits that are partially or wholly within the upper peninsula of Michigan.

Background on Wisconsin Electric's Data Collection Efforts

The Interruption Reporting System was developed in the early 1980s as the first mechanism to track distribution system outages. It was retired in 1999 due to issues with Y2k compliance and replaced with the newly developed CADOPS* Outage Reporting System (CORS). Outage information is manually entered in CORS. This entry process is similar to the old Interruption Reporting System. However, unlike the Interruption Reporting System, CORS stands ready to receive automated outage data entry when CADOPS is fully deployed throughout the Wisconsin Electric service territory. CADOPS full deployment is now nearing completion. Planning for the integration of CORS and CADOPS is currently underway. It is expected to be operational later in 2001 or early 2002. When this occurs, it will result in higher levels of data accuracy and integrity. This in turn will impact the reliability indices used to measure system performance.

During the past year extensive efforts were focused on ensuring accuracy of entries into the CORS system. This took place on several fronts. Training of reporting and entry personnel was conducted including emphasis on the importance of accurate identification of outage causes. Rules were developed and implemented in the CORS code to check for valid entries including cause and equipment codes, beginning and ending dates and times, and blank entries. Weekly outage reports were developed and sent to Area personnel for validation. Monthly procedures to check entered data for mistakes were created. At the end of 2000, the whole year was again checked using a series of predefined rules. Very few errors were uncovered due to the CORS coded error checks and the weekly and monthly error checking procedures. However, when examining circuit outage information entries on an individual basis, some errors have still been discovered. Whenever these errors are discovered, they are corrected and the circuit performance numbers are changed appropriately. The total system performance, however, is based on a "snapshot" in time after a final database overall error screening, this occurred in January 2001 for the 2000 data.

* Computer Aided Distribution OPeration System

WISCONSIN ELECTRIC RELIABILITY INDICES

PER PSC 113.0604 (2a) and PSC 113.0605 (1)

YEAR 2000	OPERATING AREA			SYSTEM TOTAL
	Southeastern WI	Fox Valley	Iron Range	
SAIFI	0.64	1.04	0.62	0.67
SAIDI	118	73	79	113
CAIDI	185	70	128	167

YEAR 1999	OPERATING AREA			SYSTEM TOTAL
	Southeastern WI	Fox Valley	Iron Range	
SAIFI	0.66	1.09	0.72	0.70
SAIDI	94	85	93	94
CAIDI	143	78	129	135

YEAR 1998	OPERATING AREA			SYSTEM TOTAL
	Southeastern WI	Fox Valley	Iron Range	
SAIFI	0.88	1.23	2.55	0.95
SAIDI	536	129	174	484
CAIDI	610	105	68	509

**WISCONSIN ELECTRIC ANNUAL RELIABILITY REPORT-
CIRCUIT PERFORMANCE
PER PSC 113.0604 (2b) and (2c)**

PSC 113.0604 (2b): “A list of the worst-performing circuits based on SAIFI, SAIDI, and CAIDI indexes, for the calendar year. This section of the report shall describe the actions that the utility has taken or will take to remedy the conditions responsible for each listed circuit’s unacceptable performance. The action(s) taken or planned should be briefly described. Target dates for corrective action(s) shall be included in the report. When the utility determines that actions on its part are unwarranted, its report shall provide adequate justification for such a conclusion.”

PSC 113.0604 (2c): “Utilities that use or prefer alternative criteria for measuring individual circuit performance to those described in s. PSC 113.0603 and which are required by this section to submit an annual report of reliability data, shall submit their alternative listing of circuits along with the criteria used to rank circuit performance.”

Wisconsin Electric collects outage data and uses SAIFI, SAIDI, and CAIDI to assess circuit performance, however a number of different criteria are utilized to develop a list and rank worst performing distribution circuits. These criteria include SAIFI, SAIDI, customer concerns, and internal feedback and recommendations from Operating, Customer Service, and Area personnel. These criteria are calculated on a fourth quarter through third quarter basis rather than a calendar year basis, in order to allow Wisconsin Electric personnel to perform field patrols, analysis and a substantial number of field improvements prior to the start of a given year’s storm season.

In order to focus improvement efforts on the portions the distribution system that will result in the most benefit to customers, localized outages affecting less than 100 kVA of load, outages to single utilization transformers affecting fewer than 10 customers, and secondary system and service drop outages are removed from the data set through the use of a filter prior to calculating reliability indices. These criteria were used to develop the worst performing circuit list for section 113.0603 (2b). In addition, in some years, major events occur that significantly affect the distribution system and can inappropriately bias the list of worst performing circuits if not taken into consideration. For this reason, the outages associated with a storm that occurred on July 2, 2000 were removed from the outage database prior to creating the worst performing circuit list reported in section 113.0603 (2b).

Wisconsin Electric 2000 Worst Performing Circuits

Per PSC 113.06 2b) and (2c)

*Reliability Indices are based on filtered data from 10/99 through 9/00

Circuit	Operating Area	Substation	SAIFI*	SAIDI*	CAIDI*	Completion Target Date	Corrective Action
1064	Southeastern WI	Harbor	2.02	104	51	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware. Spot trimmed trees
1673	Southeastern WI	Racine	2.30	239	104	10/1/2001	Review in progress.
2695	Southeastern WI	German town	2.01	188	93	10/1/2001	Review in progress.
2696	Southeastern WI	German town	2.10	139	66	10/1/2001	Review in progress.
2697	Southeastern WI	German town	3.03	205	68	10/1/2001	Review in progress.
3046	Southeastern WI	Saint Martins	1.18	303	256	10/1/2001	Review in progress.
3054	Southeastern WI	Saint Martins	3.10	480	155	10/1/2001	Review in progress.
3146	Southeastern WI	Albers	2.00	466	233	Completed Q1 2001	Outages were due to cable problems which have been repaired. Added lightning arresters.
3254	Southeastern WI	Lincoln	3.00	142	47	10/1/2001	Review in progress.
3272	Southeastern WI	Lincoln	2.00	205	103	Completed Q1 2001	Added lightning arresters. Entire feeder scheduled to be trimmed in 2001.
3287	Southeastern WI	Lincoln	2.00	236	118	10/1/2001	Review in progress.
3481	Southeastern WI	Granville	1.69	270	160	N/A	No work required. Outages due to transmission construction errors and dig-in
3652	Southeastern WI	Cornell	2.71	436	160	10/1/2001	Review in progress.
3954	Southeastern WI	Mequon	3.00	187	62	10/1/2001	Review in progress.
3956	Southeastern WI	Mequon	1.19	230	194	10/1/2001	Review in progress.
4474	Southeastern WI	Whitewater	3.36	248	74	10/1/2001	Review in progress.
4484	Southeastern WI	Whitewater	3.42	357	104	10/1/2001	Review in progress.
4541	Southeastern WI	96th Street	2.01	91	45	6/1/2001	Review/remediation in progress.
4545	Southeastern WI	96th Street	3.10	457	147	Completed Q1 2001	Major outages were due to defective equipment which was repaired/replaced at the time. Added lightning arresters.
4556	Southeastern WI	96th Street	3.00	140	47	Completed	Pole fire mitigation program addressed cause of outages.
4558	Southeastern WI	96th Street	1.74	214	123	10/1/2001	Review in progress.
6452	Southeastern WI	Summit	3.40	382	112	10/1/2001	Review in progress.
7067	Southeastern WI	Waukesha	1.62	222	137	N/A	No work required. Outages due to dig-ins.
7157	Southeastern WI	Westown	2.00	839	0	Completed Q1 2001	Added lightning arresters. Entire feeder scheduled to be trimmed in 2001.
7251	Southeastern WI	Kansas	2.21	296	134	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware.
7472	Southeastern WI	Cameron	3.03	215	71	10/1/2001	Review in progress.
7971	Southeastern WI	Medford	1.18	212	180	Completed Q1 2001	Added lightning arresters. Entire feeder trimmed in Q1 2001
8062	Southeastern WI	Saint Lawrence	1.88	241	128	6/1/2001	Review/remediation in progress.
8355	Southeastern WI	Fort Atkinson	1.53	259	169	10/1/2001	Review in progress.
8556	Southeastern WI	Saint Rita	1.34	333	249	10/1/2001	Review in progress.
8565	Southeastern WI	Saint Rita	2.20	91	41	10/1/2001	Review in progress.
8992	Southeastern WI	Paris	1.34	330	247	6/1/2001	Review/remediation in progress.
9253	Southeastern WI	Greenfield	3.00	221	74	Completed Q1 2001	Replaced or straightened poles. Added lightning arresters. Replaced some hardware.
9376	Southeastern WI	Kenosha	2.34	173	74	10/1/2001	Review in progress.
9473	Southeastern WI	Haymarket Square	2.09	234	112	Completed Q1 2001	Added fuses, lightning arresters, and wildlife protection. Replaced some hardware. Spot trimmed trees.
10951	Southeastern WI	Wind Lake	2.57	122	48	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters. Trimmed trees on entire feeder.
11664	Southeastern WI	Fiobrantz	3.01	80	26	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters. Spot trimmed trees.
14661	Southeastern WI	O Connor	1.61	355	221	10/1/2001	Review in progress.
15052	Southeastern WI	Galliff	2.77	211	76	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters. Replaced some hardware. Spot trimmed trees.
15562	Southeastern WI	Charles	1.29	467	362	Completed Q1 2001	Added lightning arresters and wildlife protection. Replaced some hardware
16273	Southeastern WI	65th Street	2.10	189	90	10/1/2001	Review in progress.
18051	Southeastern WI	College	2.13	138	65	10/1/2001	Review in progress.
18451	Southeastern WI	Byron	1.25	292	234	Completed Q1 2001	Added fuses and numerous lightning arresters. Trimmed trees on entire feeder.
19551	Southeastern WI	Goodrich	2.31	299	129	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware. Entire feeder scheduled to be trimmed in 2001.
19951	Southeastern WI	Caledonia	2.32	106	46	10/1/2001	Review in progress.
20261	Southeastern WI	Teutonia	3.25	206	63	10/1/2001	Review in progress.

Wisconsin Electric 2000 Worst Performing Circuits

Per PSC 113.06' 2b) and (2c)

*Reliability Indices are based on filtered data from 10/99 through 9/00

Circuit	Operating Area	Substation	SAIFI*	SAIDI*	CAIDI*	Completion Target Date	Corrective Action
21402	Southeastern WI	Bradley	2.93	312	107	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters. Replaced some hardware. Spot trimmed trees.
21492	Southeastern WI	Bradley	3.00	421	140	10/1/2001	Review in progress.
22362	Southeastern WI	Glendale	2.01	67	34	6/1/2001	Entire feeder scheduled to be trimmed in 2001
22782	Southeastern WI	Moorland	2.38	113	47	N/A	No work required. Outages due to dig-ins.
22786	Southeastern WI	Moorland	3.16	185	59	6/1/2001	Review/remediation in progress.
22852	Southeastern WI	Douglas	2.02	113	56	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters.
24661	Southeastern WI	Elm Grove	2.05	90	44	Completed Q1 2001	Added lightning arresters. Replaced some hardware. Spot trimmed trees.
25164	Southeastern WI	Sunnyside	3.14	167	53	10/1/2001	Review in progress.
25862	Southeastern WI	Woods Road	1.39	238	171	Completed Q1 2001	Replaced or straightened poles. Added lightning arresters. Spot trimmed trees.
27151	Southeastern WI	Reeseville	2.44	314	129	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters. Replaced some hardware.
28783	Southeastern WI	Little Prairie	1.38	219	158	10/1/2001	Review in progress.
32051	Southeastern WI	Prospect	1.93	259	134	Completed Q1 2001	Replaced or straightened poles. Added fuses and lightning arresters. Replaced some hardware. Spot trimmed trees.
32061	Southeastern WI	Prospect	2.92	273	93	10/1/2001	Review in progress.
32361	Southeastern WI	Marcy	1.19	321	270	10/1/2001	Review in progress.
33162	Southeastern WI	Springdale	1.74	229	131	Completed Q1 2001	Replaced or straightened poles. Added lightning arresters. A separate project will rebuild most of this feeder, beginning in 2001.
33483	Southeastern WI	Tichigan	3.01	86	29	Completed Q1 2001	Added lightning arresters. Entire feeder scheduled to be trimmed in 2001.
33573	Southeastern WI	Butternut	3.14	465	148	10/1/2001	Review in progress.
33981	Southeastern WI	Spring Valley	1.47	231	157	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware. Entire feeder scheduled to be trimmed in 2001.
33983	Southeastern WI	Spring Valley	2.05	313	152	Completed Q1 2001	Added fuses and lightning arresters. Entire feeder scheduled to be trimmed in 2001.
34373	Southeastern WI	Swan	2.37	261	110	Completed Q1 2001	Added fuses and lightning arresters. Spot trimmed trees.
35853	Southeastern WI	Water	2.03	353	174	N/A	No work required. Causes of outages addressed through 2000 work plus completion of scheduled tree trimming.
36381	Southeastern WI	Tamarack	2.75	281	102	N/A	No work required. Majority of outages were in neighborhood addressed with extensive remediation work in 2000.
36551	Southeastern WI	Springbrook	2.03	266	131	Completed Q1 2001	Replaced some hardware. Entire feeder trimmed in Q1 2001.
41451	Southeastern WI	Vernon	1.35	209	156	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware.
42194	Southeastern WI	Branch	3.08	228	74	10/1/2001	Review in progress.
46261	Southeastern WI	Center	2.07	415	201	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware. Entire feeder trimmed in Q1 2001.
46263	Southeastern WI	Center	3.53	114	32	10/1/2001	Review in progress.
47773	Southeastern WI	Brookdale	4.48	426	95	6/1/2001	Review/remediation in progress.
51263	Southeastern WI	Norwich	1.17	410	352	N/A	No work required. Outage due to tornado.
53453	Southeastern WI	Calhoun	2.15	172	80	Completed Q1 2001	Added fuses and lightning arresters. Replaced some hardware.
54792	Southeastern WI	Allerton	2.03	180	88	10/1/2001	Review in progress.
69166	Southeastern WI	28th Street	2.00	1216	608	Completed Q1 2001	Added lightning arresters. Outages due to dig-in and cable failure which have been repaired.
73574	Southeastern WI	68th Street	2.75	383	139	10/1/2001	Review in progress.
77389	Southeastern WI	Mukwonago	2.62	143	55	06/1/2001	Review/remediation in progress.
BDM2	Fox Valley	Butte des Morts	1.23	249	203	10/1/2001	Review in progress.
CLS1	Fox Valley	City Limits	3.17	306	97	N/A	No work required. Outages due to dig-ins.
FRR1	Fox Valley	French	2.61	357	137	Completed Q1 2001	Added lightning arresters.
FRT1	Fox Valley	Fremont	2.54	177	69	10/1/2001	Review in progress.
FRT2	Fox Valley	Fremont	2.09	164	78	10/1/2001	Review in progress.
HCL3	Fox Valley	High Cliff	2.04	147	72	Completed Q1 2001	Added lightning arresters.
MPC3	Fox Valley	Maple Creek	1.43	225	158	Completed	Replaced aluminum bell insulators and CSP transformers
PWR62	Iron Range	Powers	2.00	150	75	Completed Q1 2001	Replaced blown arresters. Spot trimmed feeder.
RDF1	Fox Valley	Readfield	2.15	99	48	10/1/2001	Review in progress.
ZCH2	Fox Valley	Zachow	2.06	191	93	Completed Q1 2001	Spot trimmed trees.

**WISCONSIN ELECTRIC ANNUAL RELIABILITY REPORT-
NEW RELIABILITY PROGRAMS
PER PSC 113.0604 (2e)**

“A description of any new reliability or power quality programs and changes that are made to existing programs”

In addition to the program to address the worst performing circuits as described in PSC 113.0604 sections (2b) and (2c), the following reliability programs were undertaken in 2000:

- Circuits that were addressed as part of previous years' worst performing circuit programs, and still failed to improve to acceptable levels of performance will be reexamined and addressed as part of the 2001 worst performing circuit program.
- Developed a new process to address localized reliability problems based on customer input resulting in over 600 field remediations
- Completed thermal scanning and necessary repairs of substation and distribution circuit components
- Completed a pole fire avoidance program that resulted in the replacement of 3,000 insulators in areas along highways susceptible to pole fires due to salt spray contamination
- Established a recloser operations count tracking program to gather information on momentary interruptions
- Initiated efforts to assure that the distribution system is placed back into its normal operating configuration as soon as possible following switching due to construction, maintenance, or equipment failures
- Developed enhanced lightning protection techniques which are being applied to lightning-susceptible feeders as part of the 2001 worst performing circuit program
- Evaluated recently developed cable testing methodologies in order to address the industry issue of cable failures
- Increased efforts to reduce the number of dig-in related outages
- Increased staffing to address reliability programs and customer concerns
- Met with municipal customers to discuss planned reliability initiatives

**WISCONSIN ELECTRIC STATUS OF WISCONSIN ELECTRIC'S LONG RANGE
DISTRIBUTION PLANS
PSC 113.0604(2f)**

“A status report of any long range electric distribution plans.”

4kV: Serves various areas throughout the service territory but is primarily located within the Milwaukee County and Appleton/Neenah areas. Plans for this system include eventual elimination through gradual conversion to 12kV, 13kV, and 25kV voltage levels. Periodic reviews of remaining facilities are made to determine the order of retirement and to schedule appropriate construction projects.

8kV: Serves residential and small commercial customers in the southeast Wisconsin area. Plans for this system include continued management of load growth through targeted conversion to the 25 kV voltage level. In general, no major expansion of the 8kV system is planned. A high level review of the 8kV system was completed in 2000. Priorities for targeted system renewal and conversion/retirement have been identified for the 2001-2020 time period.

12kV: The current and future voltage level for service to residential, commercial, and light industrial customers in the Fox Valley area. New capacity will be added as needed to provide for new load, retirement of aging facilities, and conversion of 4kV substations and feeders. Annual reviews of the capacity needs for this system are performed to schedule appropriate construction projects.

13kV: The current and future voltage level for service to residential, commercial, and light industrial customers in eastern Milwaukee County and the area in and around Iron Mountain, Michigan. A portion of this system operates as a subtransmission system. New capacity will be added as needed to provide for new load and conversion of 4kV substations and feeders. Annual reviews of the capacity needs for this system are performed to schedule appropriate construction projects.

25kV: The current and future voltage level for service to all classes of customers in the southeast Wisconsin and the Michigan service areas. New capacity will be added as needed to provide for new load, reduction of line exposure reliability concerns, and conversion of lower voltage substations and feeders. Annual reviews of the capacity needs for this system are performed to schedule appropriate construction projects.

26kV: This subtransmission system serves large commercial and industrial customers and lower voltage distribution substations in the Milwaukee and Racine/Kenosha areas. A high level plan for conversion from 26kV to 25kV was developed in 2000. Conversion projects will be scheduled as needed to provide 25kV availability for relief of 8kV substations and feeders.

35kV: This subtransmission system is the current and future voltage level serving large industrial customers and lower voltage distribution substations in the Fox Valley area. New capacity will be added as needed to provide for new load and retirement of aging facilities. Annual reviews of the capacity needs for this system are performed to schedule appropriate construction projects.

**WISCONSIN ELECTRIC ROUTE MILES OF ELECTRIC DISTRIBUTION REBUILT
DURING 2000
PSC 113.0604(3a)**

“Route miles of electric distribution line reconstructed during the year. Separate totals for single-and three-phase circuits shall be provided.”

	Miles of Line		
	Projects	Annual Orders*	Total
Single Phase	295	59	354
Three Phase	351	70	421
Total	646	129	775

* Data on miles of lines rebuilt is not available for work performed under annual orders. Number of manhours and total costs expended on annual orders approximate spending on Projects. It is assumed that labor productivity is lower on annual orders due to increased travel time and increased equipment set up time. A significant portion of annual orders is for new services rather than line rebuild. An estimate for miles of line rebuilt on the annual orders is approximately 20% of the special project work.

WISCONSIN ELECTRIC DISTRIBUTION LINE IN SERVICE
PSC 113.0604(3b)

“Total route miles of electric distribution line in service at year’s end, segregated by voltage level.”

Total route miles:

<u>Voltage Level</u>	<u>Miles</u>
2.4kV	3
4 kV	1,057
6.9kV	95
8.3kV	13,279
12.4kV	3,929
13.2kV	1,372
13.8kV	611
24.9kV	6,532
26.4kV	500
34.5kV	419
Primary Voltage	<u>27,797</u>
Secondary Voltage	<u>23,854</u>
Grand Total	51,651

Finance Statistics - 2000

Customer Contact	Month										
	April	May	June	July	August	September	October	November	December	Total	
Total	219	210,096	193,652	203,195	187,027	185,373	166,000	128,642	117,780	1,936,227	
	8	8,822	5,931	7,076	4,555	8,167	4,917	2,555	3,496	63,668	
		201,274	187,721	196,119	182,472	177,206	161,083	126,087	114,284	1,872,559	
		50	31	38	26	54	33	20	33	36	
		56	35	45	30	63	37	23	39	41	
	1,480	1,097	3,091	1,156	1,814	866	815	782	12,967		
	58	22	261	15	16	17	12	14	40		

ric (non-fire & police), and Large Business Center

The Average Number of Calendar Days to Install and Energize Service to a Customer

Attachment I

2000 Escalated Complaints

	Billing				Credit/Collection				Other	Outages/ Power Quality	Property Damage*	Grand Total
	Elec	Gas	Comb	Total	Elec	Gas	Comb	Total				
Jan	18	3	5	26	8	0	4	12	4	1	80	123
Feb	26	3	3	32	6	0	3	9	6	1	156	204
Mar	35	1	4	40	27	1	8	36	7	0	107	190
April	42	6	4	52	117	6	25	148	0	0	130	330
May	61	2	13	76	139	2	32	173	4	0	142	395
June	58	5	12	75	151	1	42	194	8	1	168	446
July	48	1	5	54	173	0	15	188	7	9	164	422
Aug	52	2	16	70	117	0	26	143	8	4	173	398
Sept	48	1	5	54	132	1	24	157	7	10	140	368
Oct	47	1	5	53	74	1	13	88	5	1	116	263
Nov	24	0	6	30	24	0	4	28	4	0	93	155
Dec	25	3	3	31	4	0	1	5	1	0	60	97
	484	28	81	593	972	12	197	1181	61	27	1529	3391

* This constitutes all property damage claims.